2003P15333 - Application No. 10/583,338 Response to Office action October 8, 2008

Response submitted December 19, 2008

Amendments to the Claims

Listing of Claims:

Claims 1-13 (canceled).

Claim 14 (currently amended). A method for automatically starting and stopping an

internal combustion engine of a motor vehicle having an air conditioning system, by

way of a start-stop device, the method which comprises:

automatically switching off the internal combustion engine, having been

started by a person, with the start-stop device in dependence on multiple stop

conditions, wherein one of the stop conditions is a release of a stop mode of an air-

conditioning device depending, inter alia, on a an actual temperature prevailing in

an interior of the motor vehicle, and a further stop condition is an expiration of a

defined variable time period, and the variable time period depends on a

temperature difference between the actual temperature prevailing in the interior of

the motor vehicle and a setpoint temperature desired by the driver.

Claim 15 (previously presented). The method according to claim 14, wherein the

time period depends on an air-conditioning performance of the air-conditioning

device.

Claim 16 (previously presented). The method according to claim 15, wherein the

time period depends on a relative air-conditioning performance defined as a

quotient of the air-conditioning performance of the air-conditioning device and the

temperature difference.

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Claim 17 (previously presented). The method according to claim 16, wherein an end of the time period depends on a basic value of a threshold value, and the method comprises reading out the basic value from an engine characteristics map depending on the relative air-conditioning performance.

Claim 18 (currently amended). The method according to claim 16, which comprises

A method for automatically starting and stopping an internal combustion engine of a

motor vehicle having an air conditioning system, by way of a start-stop device, the

method which comprises:

automatically switching off the internal combustion engine, having been started by a person, with the start-stop device in dependence on multiple stop conditions, wherein one of the stop conditions is a release of a stop mode of an air-conditioning device depending, inter alia, on an actual temperature prevailing in an interior of the motor vehicle, and a further stop condition is an expiration of a defined variable time period, and the variable time period depends on a temperature difference between the actual temperature prevailing in the interior of the motor vehicle and a setpoint temperature desired by the driver:

wherein the time period depends on a relative air-conditioning performance defined as a quotient of the air-conditioning performance of the air-conditioning device and the temperature difference; and

calculating the <u>a</u> threshold value from a link between the basic value and a learning factor representing a driver-specific manner of driving.

Claim 19 (currently amended). The method according to claim 14, A method for automatically starting and stopping an internal combustion engine of a motor vehicle having an air conditioning system, by way of a start-stop device, the method which comprises:

automatically switching off the internal combustion engine, having been started by a person, with the start-stop device in dependence on multiple stop conditions, wherein one of the stop conditions is a release of a stop mode of an air-conditioning device depending, inter alia, on an actual temperature prevailing in an interior of the motor vehicle, and a further stop condition is an expiration of a defined variable time period, and the variable time period depends on a temperature difference between the actual temperature prevailing in the interior of the motor vehicle and a setpoint temperature desired by the driver; and

wherein, when an air conditioning request is made by the driver and the internal combustion engine is not running, starting a timer to set a start time of the time period, and determining an end of the time period by comparing a current value of the timer with the threshold value, with the threshold value depending on the temperature difference.

Claim 20 (previously presented). The method according to claim 19, wherein the starting of the timer sets a logic marker.

Claim 21 (presented previously). The method according to claim 20, wherein, when an air conditioning request is made by the driver and the internal combustion engine is running, incrementally comparing the value of the timer with the threshold 2003P15333 - Application No. 10/583,338 Response to Office action October 8, 2008 Response submitted December 19, 2008

value, and when the threshold value is exceeded by a current value of the timer, enabling a release of the stop mode of the air-conditioning device.

Claim 22 (previously presented). The method according to claim 14, which comprises measuring or calculating the actual temperature in the interior according to a temperature model.

Claim 23 (currently amended). The method according to claim 22, which comprises A method for automatically starting and stopping an internal combustion engine of a motor vehicle having an air conditioning system, by way of a start-stop device, the method which comprises:

automatically switching off the internal combustion engine, having been started by a person, with the start-stop device in dependence on multiple stop conditions, wherein one of the stop conditions is a release of a stop mode of an air-conditioning device depending, *inter alia*, on an actual temperature prevailing in an interior of the motor vehicle, and a further stop condition is an expiration of a defined variable time period, and the variable time period depends on a temperature difference between the actual temperature prevailing in the interior of the motor vehicle and a setpoint temperature desired by the driver;

calculating the actual temperature in the interior with a physical/mathematical temperature model of the vehicle interior, the model taking into account a plurality of variables representing an inflow and an outflow of heat energy under different operating conditions of the vehicle.

Claim 24 (previously presented). The method according to claim 23, wherein the

variables of the temperature model include a geometry and a size of the vehicle

interior, thermal insulation properties of the vehicle, a surface area of windows, a

number and an electrical output of activated electrical consumers located in the

vehicle interior, and an input of heat through solar radiation and through an interior

heating and ventilation device.

Claim 25 (previously presented). The method according to claim 14, which

comprises determining and taking into account multiple interior-zone-related target

temperatures and interior temperatures.

Claim 26 (previously presented). The method according to claim 14, which

comprises analogously controlling an air-conditioning-related restart of the internal

combustion engine.

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